METHOD AND APPARATUS FOR THE AUTOMATIC SYNCHRONIZATION OF DYNAMIC ANGULAR AND TIME DOMAIN CONTROL SYSTEMS

Abstract of the Disclosure

A hardware system is provided for performing angle-to-time and time-to-angle conversions in a dynamic angular measurement and control system. The system has the capability of updating scheduled event times of other hardware timers in the system that are being used to generate output events at some specific angular position in the future. One application of the system is in automotive powertrain control systems in which the position of the engine is determined from a pulsed signal generated by a rotating crankshaft that accelerates and decelerates over time. The system performs critical calculations in hardware which consumes less CPU bandwidth than existing systems, resulting in potential cost savings for the overall system.